

Remarks

Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

In the pending Office Action, the Examiner rejected claims 1-10, under 35 U.S.C. §112, ¶2, as allegedly containing indefinite terms; rejected claims 1-2 and 4-8, under 35 U.S.C. §102(b), as allegedly being anticipated by Smirnov '250; rejected claim 3, under 35 U.S.C. §103(a), as allegedly being unpatentable over Smirnov '250 in view of Jeon '344; and rejected claims 9-10, under 35 U.S.C. § 103(a), as allegedly being unpatentable over Smirnov '250 in view of Vona '067. The Examiner also objected to the claims for minor informalities and the Title for not being descriptive.

By this Amendment, claims 1, 3, 4, and 6-10 have been amended for form and clarity and claims 2 and 5 have been cancelled. Moreover, the Specification, Title, and Abstract have been amended for clarity. No new matter has been added. Therefore, claims 1, 3, 4, and 6-10 are currently presented for examination, of which claim 1 is the sole independent claim. Support for the instant amendments is provided throughout the Specification.

Applicants submit that, by virtue of the changes to the claims and Title, the §112, ¶2 rejections and the claim and Title objections have been rendered moot. Accordingly, the immediate withdrawal of the rejections and objections is respectfully requested.

Applicants traverse the §102(b) and §103(a) rejections for the following reasons:

I. REJECTIONS UNDER §102(b) and §103(a).

As noted above, independent claim 1, as amended, now positively recites, *inter alia*, the *baffle assembly includes an auxiliary baffle which is provided on an inner surface of the inner peripheral wall of the rotating tub so as to extend in an axial direction of the rotating tub and is located so as to be close to one of both axial end plates* of the rotating tub and spaced

away from the other end of the rotating tub and *the auxiliary baffle has an inclined portion descending from one end plate side toward the other end plate side to the inner peripheral wall of the rotating tub and a triangular inclined surface downwardly inclined from the inclined portion toward the inner peripheral wall of the rotating tub, the inclined surface working on laundry in the rotating tub so that the laundry is pushed thereby to be moved.*

These features are amply supported and described by the embodiments disclosed throughout the written description. By way of illustration, the disclosed embodiments provide a drum washing machine having a structure that includes an auxiliary baffle which moves laundry located on an inner surface of the circumferential wall of the rotating tub, near the gravity center of a vibration system member.

A rotational speed of the rotating tub is gradually increased to a target dehydration speed when the control sequence progresses to a dehydration step. During the gradual speed increase process, laundry is moved by the inclined surface of the auxiliary baffle toward the gravity center of a vibration system member or more specifically, toward an axial gravity center of the rotating tub.

As a result, since the laundry is gathered to the position of gravity center of the vibration system member, the degree of axial unbalanced load is reduced such that occurrence of abnormal vibration or noise due to the unbalanced load is suppressed. Figure 8 is a graph showing differences in vibration produced in a dehydration step between a case where an auxiliary baffle is provided and a case where no auxiliary baffle is provided and further between different sizes of auxiliary baffles. Broken line Q shows the case where only a main baffle is provided, whereas broken lines P1 to P4 show the cases where an auxiliary baffle is provided as well as the main baffle. As understood from the comparison between broken lines Q and P1-P4, the vibration reduction caused by the auxiliary baffle is noticeable.

Applicant submits that none of the asserted references, whether taken alone or in reasonable combination, remotely suggest each and every element of claim 1 including, for

example, the features identified above. In particular, Smirnov '250 discloses a drum washing machine in which baffles are provided on an inner wall of a rotating tub and that a number of convex sections or ribs 7 are spirally arranged on a quarter area of inner surface of drum 3 and the arrangement is symmetrical about an axial center. However, Smirnov '250 fails to disclose or suggest that laundry is moved by baffles near the gravity center of vibration system member. More specifically, Smirnov '250 remains absolutely silent as to the auxiliary baffle which has an inclined portion descending from one end plate side toward the other end plate side to the peripheral wall of the rotating tub and a triangular inclined surface downwardly inclined toward the peripheral wall of the rotating tub, the inclined surface working on laundry in the rotating tub so that the laundry is pushed thereby to be moved.

Equally notable, the heights of ribs 7 in Smirnov '250 are gradually increased from the axial center position toward positions of axial end plates and each rib 7 has a tapered shape to purportedly increase washing quality and reduce unbalance. (See, Smirnov '250: Abstract).

With such a configuration, artisans of ordinary skill will readily appreciate that laundry will be easily caught by ribs 7, as drum 3 rotates, due to their tapered structure and scooped upwards. The scooped laundry will be widely dispersed within drum 3. Since the heights of ribs 7 are increased as the ribs come closer to both end plates, even laundry brought in to contact axially will be caught and easily be scooped. Furthermore, the spiral arrangement of ribs 7 is designed to effectively increase the chances of catching laundry on ribs 7 per rotation of drum 3.

The Examiner asserted that the tapered shape of the convex section of each rib 7 of Smirnov '250 corresponds to the claimed baffle inclined surface. Applicants respectfully disagree.

Specifically, each of the tapered convex sections of Smirnov '250 does not serve as an inclined surface *that pushes the laundry* – rather, as noted above, the tapered shape of the

convex portion of each rib 7 is configured to *catch the laundry*, and the catching action of each rib 7 directly results in preventing laundry from being axially pushed.

Furthermore, the intermittent spiral arrangement of the ribs 7 increases the number of chances of catching laundry during rotation of the drum, as also described above. This also results preventing laundry from being axially moved within the drum. Thus, by virtue of the tapered shape of each rib 7, each rib 7 is incapable of pushing laundry centrally in drum 3.

As such, Smirnov '250 clearly fails to suggest *an auxiliary baffle which is provided on an inner surface of the inner peripheral wall of the rotating tub so as to extend in an axial direction of the rotating tub and is located so as to be close to one of both axial end plates of the rotating tub and spaced away from the other end of the rotating tub and the auxiliary baffle has an inclined portion descending from one end plate side toward the other end plate side to the inner peripheral wall of the rotating tub and a triangular inclined surface downwardly inclined from the inclined portion toward the inner peripheral wall of the rotating tub, the inclined surface working on laundry in the rotating tub so that the laundry is pushed thereby to be moved*, as required by claim 1.

Applicants further submit that none of the remaining references, namely, Jeon '344 and Vona '067, cure the deficiencies of Smirnov '250 noted above. Thus, for at least these reasons, Applicant submits that claim 1 is neither anticipated by or rendered obvious by the references and is, therefore, clearly patentable. And, because claims 3, 4, and 6-10 depend from claim 1, claims 3, 4, and 6-10 are patentable at least by virtue of dependency as well as for their additional recitations.

Accordingly, the immediate withdrawal of the §102(b) and §103(a) rejections is respectfully requested.

Conclusion

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

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Respectfully Submitted,

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